



August 19, 2019

The Honorable Loren Sweatt
Assistant Secretary (Acting)
Occupational Safety and Health Administration
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D.C. 20210

VIA ELECTRONIC SUBMISSION: <http://www.regulations.gov>

Re: OSHA Docket No. OSHA 2016-0013, Request for Information: the Control of Hazardous Energy (Lockout/Tagout), 84 Fed. Reg. 22756 (May 20, 2019)

Dear Assistant Secretary Sweatt:

The Coalition for Workplace Safety (“CWS”) is composed of a group of associations and employers who believe in improving workplace safety through cooperation, assistance, transparency, clarity, and accountability. CWS believes that workplace safety is everyone’s concern. Improving safety can only happen when all parties—employers, employees, and OSHA—have a strong working relationship.

On behalf of the undersigned, CWS submits these comments on OSHA’s Request for Information (“RFI”) on the Control of Hazardous Energy, 29 C.F.R. 1910.147, published at 84 Fed. Reg. 22756 (May 20, 2019). According to its Request for Information, OSHA is seeking ways “where modernizing the Lockout/Tagout (“LOTO”) standard might better promote worker safety without additional burdens to employers[.]” 84 Fed. Reg. at 22760. CWS agrees that the LOTO standard needs modernization. Since its inception, the LOTO standard has struggled to keep up with the rapid advancement of technology. For that reason, CWS welcomes OSHA’s efforts to modernize the standard to promote worker safety. CWS cautions OSHA, however, that certain deviations from the current standard will cause greater burdens on employers.

1. CWS Agrees the LOTO Standard is Outdated and Has Not Kept Pace with Technological Advancements

In its original iteration of the LOTO standard, OSHA required that the release of *unexpected* hazardous energy be controlled during the servicing and maintenance of machines or equipment. 54 Fed. Reg. 36644, 36687 (September 1, 1989). To accomplish this, OSHA required employers to use energy isolating devices (“EID”) and defined an EID to exclude “push button,

selector switch, and other control circuit type devices.”¹ *Id.* But since the LOTO standard was first promulgated in 1989, control circuit device technology has significantly advanced. For instance, technological advances since 1989 have made presence sensing devices a reliable source to prevent employees from being exposed to the release of unexpected hazardous energy.²

OSHA did not contemplate such sophisticated control circuit technology during its original LOTO rulemaking. So, in its attempt to “modernize” the LOTO standard, OSHA must not only contemplate the current state of technology but should also seek to draft a rule that will provide employers with the flexibility to capitalize on technological advancements allowing them to keep their workers safe while reducing burdens and inefficiencies caused by machine down time and maintenance.

2. Control Circuit Devices Have Significantly Improved and Are a Reliable Engineering Control for the Unexpected Release of Hazardous Energy

At its core, OSHA’s LOTO standard is an *administrative control*³ and therefore, LOTO is a lower level control on the hierarchy of controls and should not be preferred over reliable engineering controls, which can eliminate the hazard. LOTO requires employers to provide training to employees on appropriate, and at times complex, LOTO procedures. Then employees must remember and follow these procedures thereby allowing several opportunities for human error to expose employees to hazards. First, employees must recognize that there is a need for LOTO in the work that they are performing. Assuming that the employee is trained and recognizes that the work they are doing requires the machine to be locked out, there is still opportunity for human error, including: failing to identify all energy sources, allowing for locks to have duplicate keys so that many employees have access to the lock, leaving the key in the lock, or failing to drain all residual energy.

In contrast, reliably effective control circuitry provides an *engineering control* to prevent employees from being exposed to hazards caused by the unexpected release of hazardous energy. As OSHA mentioned in its Request for Information, “control circuit type devices may be at least as safe as [energy isolating devices].” 84 Fed. Reg. at 22757. CWS contends that control circuit type devices, being an engineering control, are often times as safe, if not safer, than LOTO procedures. So long as risk assessments have been conducted and the machines have sufficiently reliable control systems, most maintenance and servicing of machines can be accomplished with control circuit devices. CWS does recognize, though, that there may be certain work in which energy isolation devices are more appropriate. Such work could include assembly and disassembly of machinery or for major, structural repairs. But for less involved maintenance and servicing, employers should be given the flexibility to determine whether control circuit devices are equally as safe as LOTO procedures.

¹ Yet OSHA did specifically recognize that “specially designed control circuits, control equipment, and operating procedures” are allowable for “required repetitive minor adjustments where this is not feasible or in the case of normal production operations.” 54 Fed. Reg. at 36661. (citing ANSI Z244.12-1982).

² OSHA has recognized presence sensing devices as an adequate means of machine guarding. <https://www.osha.gov/SLTC/etools/machineguarding/presses/psd.html>

³ OSHA acknowledges that LOTO is an administrative control in its own publications. See https://www.osha.gov/SLTC/etools/electric_power/hazard_assessment_jobbriefing.html

CWS believes that reliably effective control circuitry provides employees with the same degree of safety, if not more, as LOTO procedures. As such, OSHA should consider allowing employers to take advantage of this technology when determining how to keep their employees safe from the unexpected release of hazardous energy.

3. Control Circuit Devices Create Efficiencies for Production While Maintaining Employee Safety

In addition to being as safe as energy isolating devices, allowing employers to expand the use of control circuit devices will create added efficiencies as the machine down time will be curtailed and machine wear and tear will be reduced. Reducing wear and tear would result in less required servicing and maintenance, which in turn would equate to less employee exposure to potential hazards.

Having to lockout machinery for tasks for which control circuit devices are equally as protective leads to extended machine downtime. This downtime can be costly to employers and can mean the difference between meeting a client's demand for their product and not. While the safety of an employee should not be sacrificed for the sake of increased production, sufficiently reliable control circuit devices will minimize the disruption in the workflow and can help employers maintain both efficiency and employee safety. For example, current machinery can be used for several purposes. Consider packaging machinery: that machinery can be configured to produce and handle different shapes, sizes, and dimensions of packages. But in many cases, completely isolating the energy to that piece of packaging machinery will cause it to lose all the once configured packaging data. So, after the machine is serviced it will have to be reconfigured for the shape, size and dimensions of the packages, causing additional machine downtime.

Additionally, allowing for the use of circuit control devices would help prevent excessive wear and tear on machinery making the machines both more cost-effective and safer. Locking out machinery can cause additional wear and tear on the machinery, especially when the machine has to be re-energized from a cold start. This wear can be minimized through control circuit devices as machinery will not be completely deenergized and thus will not have to be started from a zero-energy state. This would have the benefit of both decreasing the amount of wear on the machinery and the amount of down time for the machinery.

CWS believes that control circuit devices are safe and provide efficiencies of which employers should be allowed to take advantage.

4. OSHA Should Consider Whether Grandfathering Existing Machinery is Appropriate

OSHA has found that the use of control circuit devices provides an effective alternative protection from hazardous energy under the minor servicing exception.⁴ In past interpretative

⁴ See Standard Interpretation Letter, "LOTO: minor servicing exemption and the use of a lockable on/off switch as an alternate measure to provide effective protection." <https://www.osha.gov/laws-regs/standardinterpretations/2004-10-20>. See also Standard Interpretation Letter, "Use of a PLC system as an alternative measure which provides

guidance, OSHA has taken the position so long as “a circuit [] meets the control reliability and control-component-failure-protection requirements of the American National Standards for machine tools (ANSI B11.19-1990)...” it meets the threshold of an effective alternative protection from hazardous energy. If OSHA determines that control circuit devices must meet more strict or burdensome threshold requirements for control-reliability, CWS believes that control circuit devices currently used for minor servicing that may not meet these requirements should be grandfathered allowing employers to continue their use. Otherwise, employers would be forced to go through costly retrofitting to use the control circuitry for minor servicing that OSHA has been allowing employers to use for decades as an alternative protective measure under the minor servicing exception. The cost of retrofitting machinery could prevent employers from upgrading the control circuitry, leaving them to have to lockout machinery for the simplest of machinery servicing such as tool changes. Such a result would go against OSHA’s goal of modernizing the LOTO standard without increasing burdens on employers. For that reason, CWS suggests that during this rulemaking OSHA considers areas in which grandfathering would be appropriate to prevent unnecessary burdens on employers.

5. Application of the LOTO Standard to Robotics

Robotic systems are improving efficiency and productivity, especially in the manufacturing sector. Additionally, collaborative robotic systems—machines designed to work alongside and even hand-in-hand with humans—can be used to improve workplace safety. Many machines are equipped with speed and force controls and light veils, making robotic systems safer than human-operated equipment. However, strict adherence to the LOTO standard leads to logistical problems—some newer systems have such precise calibrations that deenergizing them could introduce inaccuracies that would render the system ineffective. In other cases, de-energized systems incur debilitating slowdowns or shutdowns, making operations prohibitively expensive, and possibly making them less safe. To deal with this, many robotic systems have been designed to undergo maintenance without deenergizing them. However, robotics systems have safety features that can keep employees safe while maintenance is performed such as slow speed control.⁵

When considering how to integrate robotics into the LOTO standard, OSHA should consider the advanced technology that comes along with robotics. Most of the work done on industrial robotics is not done with a wrench and screwdriver but with a computer and keyboard. This means that many times robots must remain energized for maintenance or programming to be done. Moreover, the safety functions of robotics tend to be more advanced than that of non-robotic machinery. For these reasons, OSHA should also consider situations in which LOTO would not be necessary because the robotic systems provide alternative protective measures that are as safe as LOTO.

Robotics and robotic systems are becoming more prevalent in industry. CWS believes that OSHA account for the unique roles robotics play in commerce while allowing employers flexibility in determining how to protect their employees from hazards.

effective protection for minor servicing activities.” <https://www.osha.gov/laws-regs/standardinterpretations/2008-01-25>

⁵ See ANSI/RIA R15.06-2012 Industrial Robots and Robot Systems-Safety Requirements.

6. Deleting “Unexpected” from the LOTO Standard Would Create a Significant Burden to Employers

In the recent Standards Improvement Project- Phase IV rulemaking (“SIP-IV”), OSHA proposed a revision to the LOTO standard that would have deleted the term “unexpected” from the standard. CWS commends OSHA for removing the LOTO item from the SIP-IV package and moving forward with this LOTO-specific rulemaking. CWS reiterates its opposition to removing the term “unexpected” as there is no evidence that it would improve the safety or health of workers.

When first adopted, the LOTO standard was specifically limited to cover only “the servicing and maintenance operations in which the *unexpected* energization or startup of the machines or equipment, or the release of stored energy could cause injury to employees.” 29 C.F.R. § 1910.147(a)(1)(i) (emphasis added) (54 Fed. Reg. at 36687, as amended at 54 Fed. Reg. 42498 (Oct. 17, 1989)). In the original publication of the LOTO standard the term “unexpected” appears eight times and was italicized twice to bring emphasis to the term and to clarify its scope and application.

The term “unexpected” is used throughout the standard and is included several times within the sample Lockout Procedure offered by OSHA in Appendix A. Removing this well understood term that has been a cornerstone of the LOTO standard for decades strays from the application of the standard. This would require OSHA to change its enforcement and compliance actions to deal with situations not previously covered by LOTO. Employers from every industry would also have to reevaluate their entire LOTO procedures and reassess whether servicing and maintenance operations of certain machines or equipment not covered before would now fall under LOTO.

Perhaps most importantly, this change would also eliminate cost-effective alternatives to LOTO, such as the use of control circuit devices, which may be easier to manage as they are engineering controls as opposed to lockout procedures which are merely administrative controls dependent on employee actions to be effective, as noted earlier. This would seem to diverge from the goals enumerated in this Request for Information. Even OSHA’s Compliance Directive for LOTO, recognizes the use of alternatives to LOTO: “Likewise, to the extent that they eliminate or prevent employee exposure to hazardous energy, the use of machine guarding methods (e.g., barrier guards, enclosure guards) may be used as alternatives to LOTO during servicing and/or maintenance activities.” CPL 02-00-147, February 11, 2008. Nor is there any evidence that greatly expanding the coverage of LOTO would improve the safety and health of workers. In fact, deleting “unexpected” from the standard may lessen the protection of workers by eliminating efforts by employers to create warning mechanisms to alert workers of expected energization of machines and equipment.

To delete the term “unexpected” from the standard would completely ignore the efforts taken by employers over many years to comply with the standard as currently written based on the reliance of Agency directives and legal interpretations used by the Agency for evaluation purposes. By greatly expanding the scope of this standard, employers will have to go back and

reevaluate their operations to determine whether any of their processes will now be covered by LOTO. If so, these employers will necessarily incur additional burdens and costs in assessing and creating new procedures to come into compliance. Employers that undertook actions in reliance on the existing standard, case law, and Agency guidance will have to scrap those efforts with no guarantee that doing so will improve worker safety by implementing different procedures.

The removal of “unexpected” from the LOTO standard would transform the meaning and scope of standard and would impose significant new burdens on employers. As a result, it would not be in keeping with OSHA’s goal to modernize the standard without additional burden to employers.

CWS appreciates the opportunity to provide comments to OSHA’s Request for Information and we look forward to continuing to work with OSHA throughout this rulemaking process.

For the Coalition on Workplace Safety,

American Bakers Association
American Feed Industry Association
American Forest & Paper Association
American Foundry Society
American Iron and Steel Institute
American Trucking Associations
Copper and Brass Fabricators Council
Distribution Contractors Association
Flexible Packaging Association
Global Cold Chain Alliance
Healthcare Distribution Alliance (HDA)
Independent Electrical Contractors
Industrial Minerals Association - North America
Mechanical Contractors Association of America
Motor & Equipment Manufacturers Association
National Association for Surface Finishing
National Automobile Dealers Association
National Demolition Association
National Grain and Feed Association
National Roofing Contractors Association
National Tooling and Machining Association
National Utility Contractors Association
Non-Ferrous Founders’ Society
North American Die Casting Association
North American Meat Institute
Precision Machined Products Association
Precision Metalforming Association
Retail Industry Leaders Association
Sheet Metal and Air Conditioning Contractors National Association

Tile Roofing Industry Alliance
Tree Care Industry Association
U.S. Chamber of Commerce

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